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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/784,422

02/23/2004

Haruki Hiranuma

S004-5217

2563

7590

12/21/2005

ADAMS & WILKS

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50 Broadway

New York, NY 10004

EXAMINER

KAYES, SEAN PHILLIP

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 12/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/784,422

Applicant(s)

HIRANUMA ET AL.

Examiner

Sean Kayes

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/23/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the square nut and square opening must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections***

2. Claim 6 is objected to because of the following informalities: "is forming a polygon" should be "is formed by a polygon". Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li (US 5598383) in view of Sechler (US 2002/0033069, note this publication was later patented with patent number US 6581494.)

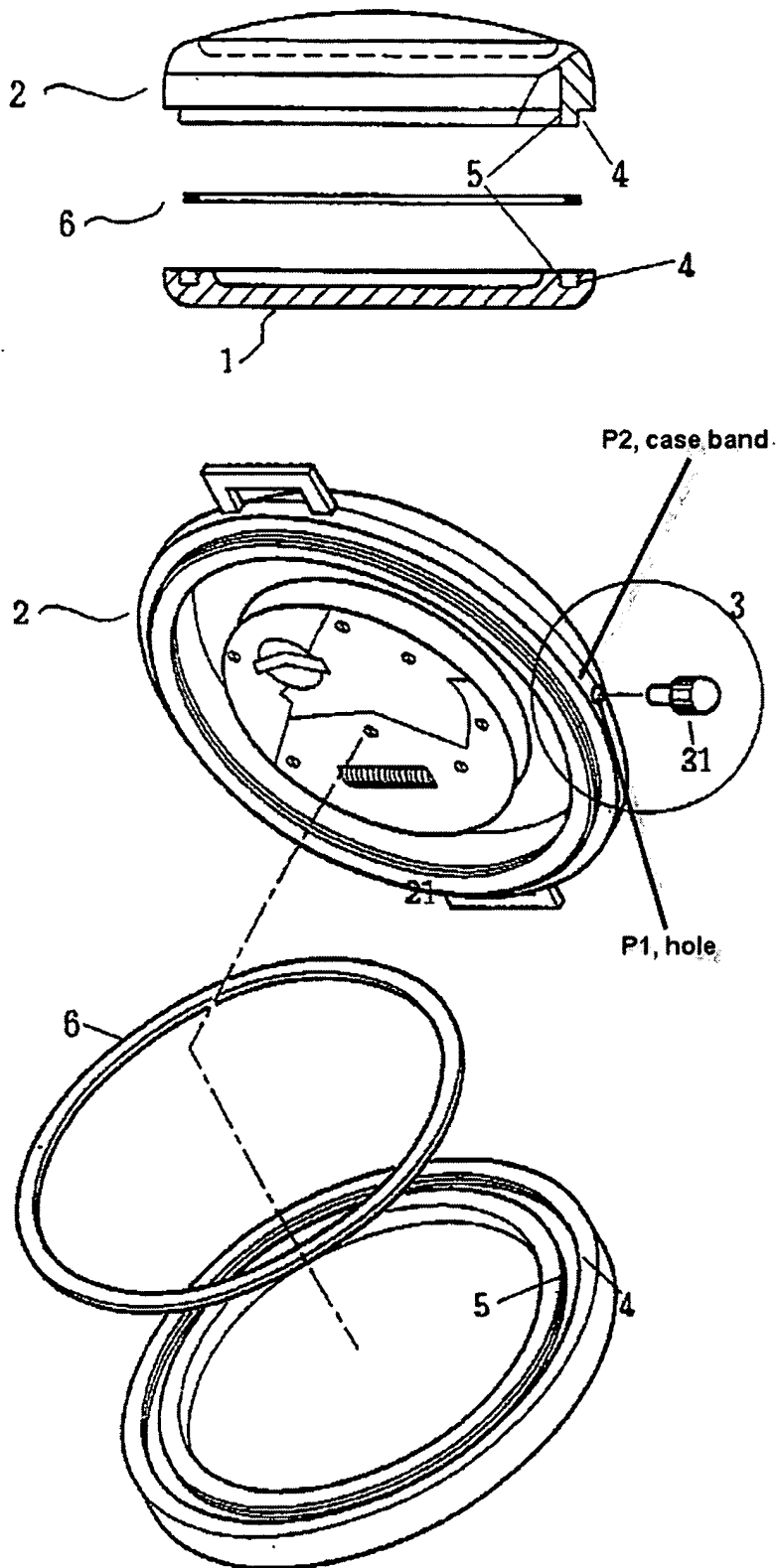
5. With respect to claim 1 Li discloses a portable watch (column 1 lines 6-13), comprising: a case band (P2, picture I.) provided with a pipe-attachment hole (P1) including a female screw section (P3, figure II.); a winding stem pipe (P4) attached to the case band after going through the pipe-attachment hole, including a first male screw section (P5) to be screwed together with the female screw section (P3) in a removable manner, a waterproof gasket (P16) sandwiched between the case band and the winding stem pipe. Li does not disclose the all male reverse thread design and a clamp ring separate from the stem pipe.

Sechler discloses an intracase-band end section (P9, picture III.) provided with a screw section being a reverse screw (P7) for the first male screw section (P12), and an extracase-band end section (P10) including a second male screw section (P13) and abutting to an outer surface of the case band (P11); a clamp ring (P8) screwed together with the screw section of the intracase-band end (P9) section in a removable manner, sandwiching the case band with the extracase-band end section (P10); and a crown (P14) including a crown main section formed with a female screw section (P15) to be screwed together with the second male screw section (P13) in a removable manner.

Li and Sechler are analogous art because they deal with the same problem, namely securing two hollow housing pieces in a water tight/resistant fashion.

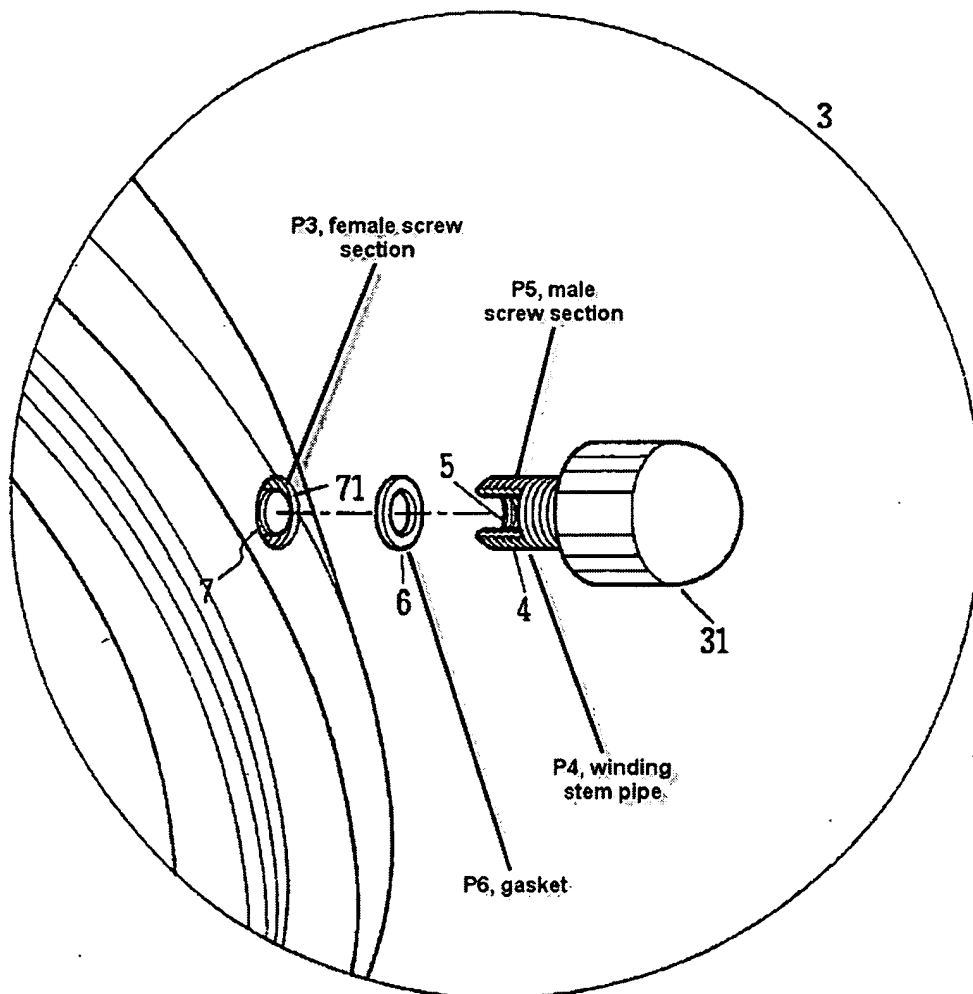
At the time of the invention it would have been obvious to one skilled in the art to combine Sechlers reversed thread and ring clamp with Li's invention to facilitate a more stable water resistant seal.

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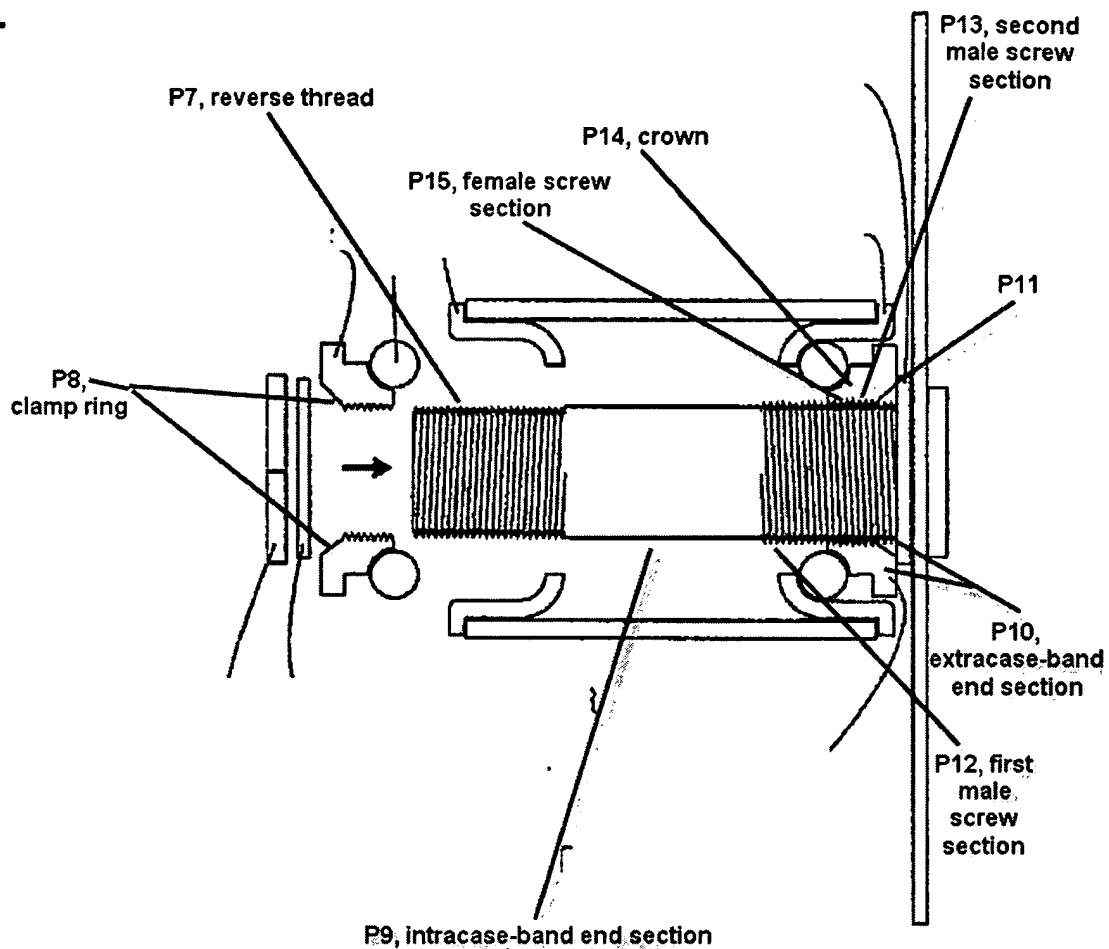


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II.



## III.

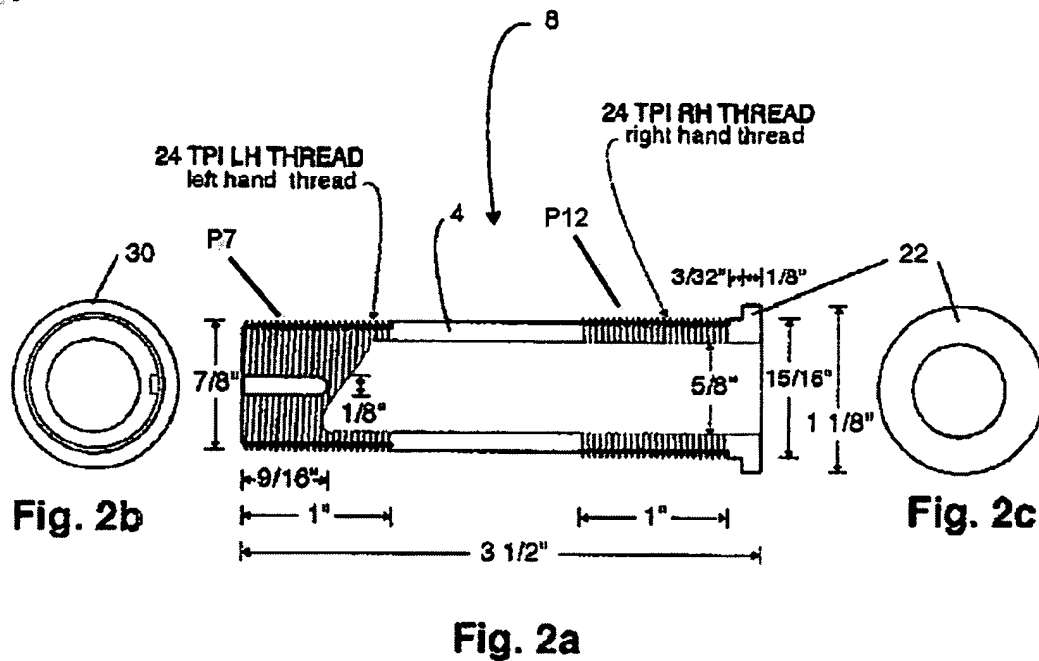


6. With respect to claim 2 Li in view of Sechler discloses a portable watch according to claim 1. Li does not disclose wherein one thread is smaller in diameter than another.

Sechler discloses wherein an outer diameter of the screw section (P7) of the intracase-band end section is formed to be smaller than an outer diameter of the first male screw section (P12; see figure 2 a version of which is provided below in the form of picture IV.)



#### IV.



At the time of the invention it would have been obvious to one skilled in the art to combine Sechler's thread design with Li's watch to facilitate a more stable water resistant seal.

The suggestion motivation for using the thinner inner thread is so that the whole apparatus can be inserted into a fitting such that the reverse thread of P7 will not have to be compatible with the female thread designed to fit P12.

7. With respect to claim 3 Li in view of Sechler discloses a portable watch according to claim 1. Li does not explicitly disclose a clamp ring in the form of a square nut.

At the time of the invention it would be obvious to one skilled in the art to modify Sechler's clamp ring (P8) into a square nut.

The suggestion or motivation for doing so would be to facilitate adjusting said clamp ring with a more common tool, specifically a wrench.

8. With respect to claim 4 Li in view of Sechler discloses a portable watch according to claim 1. Li does not disclose wherein the extracase-band has an engagement section to be engaged with a tool for rotating the stem pipe.

Sechler discloses wherein the extra-band end section includes an engagement section to be engaged with a tool rotating the winding stem pipe (said engagement section follows from the transition from figure 4 to figure 5. Note, said engagement sections have long since been used in this style of screwing apparatus, figure 5 US 5492937).

At the time of the invention it would have been obvious to one skilled in the art to combine Sechler's thread design with Li's watch to facilitate a more stable water resistant seal.

The suggestion motivation for the engagement section is to facilitate installation of first male thread into partner female thread.

9. With respect to claim 5 Li in view of Sechler discloses the portable watch according to claim 4. Li does not disclose a square hole.

The type of engagement section typically used in Sechler's application involves multiple grooves to facilitate rotation by the use of a tool. Said tools are usually manufactured in one standard size. Although smaller sizes do exist, they are not as common. In applying Sechler's screw design to Li's invention would require reducing the size of the engagement section. Subsequently it would be

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desirable to modify the engagement section such that it can make use of existing (smaller) tools.

At the time of the invention it would have been obvious to one skilled in the art to modify Sechler's engagement section such that it was a square opening commonly used to be compatible with socket wrenches (see figures 1-3 US 5259278.)

The suggestion or motivation for doing so would be to facilitate using more common preexisting tools.

10. With respect to claim 6 Li in view of Sechler discloses the portable watch according to claim 4. Li does not disclose a polygon exposing to an outer rim plane.

At the time of the invention it would have been obvious to one skilled in the art to modify Sechler's engagement section such that it was a square, hex-angle, or another polygon form common to tool design opening commonly used to be compatible with socket wrenches (see figures 1-3 US 5259278,) allen wrenches (see figure 16 US 6314844), or other common tool form.

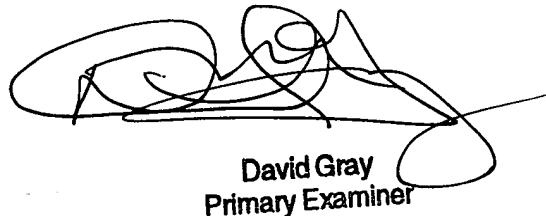
### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean Kayes whose telephone number is (571) 272-8931. The examiner can normally be reached on 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571)272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Gray  
Primary Examiner

SK  
12/16/2005